VOL. 540, NOS. 1+2 JOURNAL OF CHROMATOGRAPHY MARCH 1, 1991

CONTENTS

(Abstracts/Contents Lists published in Analytical Abstracts, Biochemical Abstracts, Biological Abstracts, Chemical Abstracts, Chemical Titles, Chromatography Abstracts, Current Contents/Life Sciences, Current Contents/Physical, Chemical & Earth Sciences, Deep-Sea Research/Part B: Oceanographic Literature Review, Excerpta Medica, Index Medicus, Mass Spectrometry Bulletin, PASCAL-CNRS, Referativnyi Zhurnal, Research Alert and Science Citation Index)

REGULAR PAPERS

Column Liquid Chromatography

Comparison of the performances of overloaded elution and displacement chromatography for a given column
by A. M. Katti, E. V. Dose and G. Guiochon (Knoxville, TN, U.S.A.) (Received September 26th, 1990) 1

Preparative high-performance liquid chromatography based on reversed-phase gradient elution. Optimum experimental conditions for heavily overloaded separation
by L. R. Snyder and J. W. Dolan (Lafayette, CA, U.S.A.) and G. B. Cox (Wilmington, DE, U.S.A.) (Received September 25th, 1990) 21

Simultaneous conductivity and potentiometric detector for miniaturized liquid chromatography and flow analysis
by K. Šlais (Brno, Czechoslovakia) (Received October 16th, 1990) 41

Characterization and stability of silanized and polymer-coated octadecyl reversed phases
by M. J. J. Hetem, J. W. de Haan, H. A. Claessens and C. A. Cramers (Eindhoven, The Netherlands) and A. Deege and G. Schomburg (Mülheim an der Ruhr, Germany) (Received October 1st, 1990) 53

Surface treatment effects in microcolumn liquid chromatography
by W. H. Wilson and H. M. McNair (Blacksburg, VA, U.S.A.) and K. J. Hyver (Avondale, PA, U.S.A.) (Received August 23rd, 1990) 77

Analytical- and preparative-scale chromatographic separation of phenylalanine from aspartame using a new polymeric sorbent
by M. R. Ladisch and R. L. Hendrickson (West Lafayette, IN, U.S.A.) and E. Firouztale (Spring House, PA, U.S.A.) (Received November 20th, 1990) 85

Monosized adsorbents for high-performance affinity chromatography. Application to the purification of calf intestinal alkaline phosphatase and human urine urokinase
by Y. D. Clonis and C. R. Lowe (Cambridge, U.K.) (Received November 6th, 1990) . . . 103

Effect of the configuration of the substituents of derivatized β-cyclodextrin bonded phases on enantioselectivity in normal-phase liquid chromatography
by A. M. Stalcup, S.-C. Chang and D. W. Armstrong (Rolla, MO, U.S.A.) (Received October 24th, 1990) 113

Chiral recognition mechanisms on chiral stationary phases derived from tyrosine. Specific influence of the nature of the asymmetric centre vicinal functional group
by L. Siret (Paris, France), A. Tambuté (Vert-le-Petit, France) and M. Caude and R. Rosset (Paris, France) (Received September 28th, 1990) 129

Polymer-bound chiral polymers for use in enantiomer separations
by T. Hargitai, P. Reinholdsson, B. Törnell and R. Isaksson (Lund, Sweden) (Received October 2nd, 1990) 145

(Continued overleaf)

Resolution of (±)-2-aminoheptane enantiomers by inductive adsorption chromatography
by F. Duprat, V. Coyard, P. Dolcerocca and R. Gassend (Marseille, France) (Received October 2nd, 1990) 157

Direct enantiomeric separation of β-amino acids and β-amino alcohols by ligand-exchange chromatography
by S. Yamazaki, T. Takeuchi and T. Tanimura (Toyama-shi, Japan) (Received October 1st, 1990) 169

Amino acid analysis using derivatisation with 9-fluorenylmethyl chloroformate and reversed-phase high-performance liquid chromatography
by P. A. Haynes (North Ryde, Australia), D. Sheumack (Lidcombe, Australia), J. Kibby (Dingley, Australia) and J. W. Redmond (North Ryde, Australia) (Received November 8th, 1990) 177

Monitoring of protein conformation by high-performance size-exclusion liquid chromatography and scanning diode array second-derivative UV absorption spectroscopy
by C. E. Ackland, W. G. Berndt, J. E. Frezza, B. E. Landgraf, K. W. Pritchard and T. L. Ciardelli (Hanover, NH, U.S.A.) (Received November 2nd, 1990) 187

Liquid chromatography–mass spectrometry studies of 9-fluorenylmethyl chloroformate derivatives of polyamines
by Z. Lu and H. Veening (Lewisburg, PA, U.S.A.) and J. E. Coutant (Cincinnati, OH, U.S.A.) (Received October 17th, 1990) 199

Optimized high-performance liquid chromatographic procedure for the separation and quantification of the main folacins and some derivatives. I. Chromatographic system
by A. Hahn, J. Stein, U. Rump and G. Rehner (Giessen, Germany) (Received September 14th, 1990) 207

Supercritical Fluid Chromatography

Immobilization of chiral phases for enantiomer separations in supercritical fluid and gas chromatography
by G. Lai, G. Nicholson, U. Mühleck and E. Bayer (Tübingen, Germany) (Received April 19th, 1990) 217

Behaviour of phenols under supercritical fluid chromatographic conditions in relation to the pyrolysis of lignocellulosic materials
by J. L. Grandmaison and S. Kaliaguine (Sainte-Foy, Canada) (Received July 6th, 1990) . 225

Analysis of sulphonamides using supercritical fluid chromatography and supercritical fluid chromatography–mass spectrometry
by J. R. Perkins and D. E. Games (Swansea, U.K.) and J. R. Startin and J. Gilbert (Norwich, U.K.) (Received November 27th, 1990) 239

Analysis of veterinary drugs using supercritical fluid chromatography and supercritical fluid chromatography–mass spectrometry
by J. R. Perkins and D. E. Games (Swansea, U.K.) and J. R. Startin and J. Gilbert (Norwich, U.K.) (Received November 20th, 1990) 257

Packed-microbore supercritical fluid chromatography with flame ionization detection of abused vegetable oils
by J. E. France, J. M. Snyder and J. W. King (Peoria, IL, U.S.A.) (Received November 20th, 1990) 271

Gas Chromatography

New polar polysiloxane stationary phases containing cyano, nitrophenyl and 8-quinolinyl units attached to diethylene oxide side groups
by J. S. Bradshaw, M. M. Schirmer and Z. Juvancz (Provo, UT, U.S.A.), K. E. Markides (Uppsala, Sweden) and M. L. Lee (Provo, UT, U.S.A.) (Received September 27th, 1990) . 279

Correlation of structure with linear retention index for bromo- and bromochlorodibenzo-*p*-dioxins and bromodibenzofurans
by J. R. Donnelly, W. D. Munslow, A. H. Grange, T. L. Pettit, R. D. Simmons and G. W. Sovocool (Las Vegas, NV, U.S.A.) (Received November 27th, 1990) 293

Prediction of retention times in temperature-programmed multichromatography
by L. H. Wright and J. F. Walling (Research Triangle Park, NC, U.S.A.) (Received November 13th, 1990) 311

Determination of egg yolk cholesterol content by on-column capillary gas chromatography
by M. Fenton and J. S. Sim (Edmonton, Canada) (Received November 19th, 1990) . . . 323

Determination of chloropyridine isomers by gas chromatography and high-performance liquid chromatography in chlorpyrifos process development
by S. Husain, P. Nageswara Sarma, G. Y. S. K. Swami and R. Narsimha (Hyderabad, India) (Received September 14th, 1990) 331

Electrophoresis

Free-solution reactor for post-column fluorescence detection in capillary zone electrophoresis
by D. J. Rose, Jr. (Palo Alto, CA, U.S.A.) (Received October 30th, 1990) 343

On-line multichannel Raman spectroscopic detection system for capillary zone electrophoresis
by C.-Y. Chen and M. D. Morris (Ann Arbor, MI, U.S.A.) (Received August 28th, 1990) 355

Electrophoretic study of α-D-mannosidase and α-D-galactosidase from dry seeds of *Pisum sativum*
by S. Sklenářová and M. Tichá (Prague, Czechoslovakia) (Received September 24th, 1990) 365

SHORT COMMUNICATIONS

Liquid Chromatography

Compensated delay volume as an approach to improve the interlaboratory transferability of gradient high-performance liquid chromatographic assays
by S. K. MacLeod (Kalamazoo, MI, U.S.A.) (Received December 5th, 1990) 373

Selective determination of altertoxins by high-performance liquid chromatography with electrochemical detection with dual "in-series" electrodes
by A. Visconti, A. Sibilia and F. Palmisano (Bari, Italy) (Received November 14th, 1990) 376

High-performance liquid chromatographic determination of mycophenolic acid in fermentation broth
by F. L. Neely and R. J. Parks (Indianapolis, IN, U.S.A.) (Received December 14th, 1990) 383

Application of reversed-phase high-performance liquid chromatography to the separation of apolipoproteins A-IV, A-I and E from rat high-density lipoprotein
by B. Meyer, E. Kecorius, P. Barter, N. Fidge and T. Tetaz (Prahran, Australia) (Received November 1st, 1990) 386

Separation of aspartame and its precursor stereoisomers by chiral chromatography
by S.-L. Lin, S.-T. Chen, S.-H. Wu and K.-T. Wang (Taipei, Taiwan) (Received October 23rd, 1990) 392

Determination of 5-methylcytosine content of four Cucurbitaceae species using high-performance liquid chromatography
by M. V. Deshpande, S. T. Dhume, P. R. Vyas and M. R. Bhave (Pune, India) (Received September 10th, 1990) 397

Micro method for the identification of proanthocyanidin using thiolysis monitored by high-performance liquid chromatography
by J. Rigaud, J. Perez-Ilzarbe, J. M. Ricardo da Silva and V. Cheynier (Montpellier, France) (Received October 8th, 1990) 401

(Continued overleaf)

High-performance liquid chromatographic separation of fenthion and its metabolites
by P. Cabras, A. Plumitallo and L. Spanedda (Cagliari, Italy) (Received October 26th, 1990) 406

Determination of glyphosate and its major metabolite aminomethylphosphonic acid by high-performance liquid chromatography after derivatization with *p*-toluenesulphonyl chloride
by S. Kawai and B. Uno (Gifu, Japan) and M. Tomita (Kurashiki, Japan) (Received October 9th, 1990) 411

Determination of 5-aminosalicylic acid and related compounds in raw materials and pharmaceutical dosage forms by high-performance liquid chromatography
by C. Gandini (Pavia, Italy), G. Caccialanza (Pisa, Italy) and M. Kitsos, G. Massolini and E. De Lorenzi (Pavia, Italy) (Received October 17th, 1990) 416

Estimation and identification of non-polar compounds in clarithromycin bulk drug by high-performance liquid chromatography
by R. J. Gorski, D. K. Morgan, C. Sarocka and A. C. Plasz (North Chicago, IL, U.S.A.) (Received December 3rd, 1990) 422

Gas Chromatography

Application of topographic indices to chromatographic data: calculation of the retention indices of alkanes
by N. Bošnjak, Z. Mihalić and N. Trinajstić (Zagreb, Yugoslavia) (Received October 30th, 1990) 430

Effect of temperature on the sensitivity of the photoionization detector
by T. V. Adamia, V. L. Budovich, I. A. Nevjagskaya, A. F. Shlyakhov and S. A. Jakovlev (Moscow, U.S.S.R.) (Received October 2nd, 1990) 441

Generation of standard gaseous mixtures by thermal decomposition of surface compounds. Standard mixtures of thiols
by P. Konieczka, J. Namieśnik and J. F. Biernat (Gdańsk, Poland) (Received November 19th, 1990) 449

Analysis of packaged orange juice volatiles using headspace gas chromatography
by J. S. Paik and A. C. Venables (Newark, DE, U.S.A.) (Received November 1st, 1990) . 456

Use of low-purity solvents and reagents for analysis of residues of synthetic pyrethroid pesticides by gas chromatography with electron-capture detection
by P. P. Singh and R. L. Kalra (Ludhiana, India) (Received November 7th, 1990) 464

Planar Chromatography

Separation of flavonoid glucosides from their galactosidic analogues by thin-layer chromatography
by J. Budzianowski (Poznan, Poland) (Received October 16th, 1990) 469

Electrophoresis

Capillary tube isotachophoretic separation of lanthanide complexes using polyaminocarboxylic acid as terminating ion
by S. Tanaka, T. Kaneta, K. Nishimura and H. Yoshida (Sapporo, Japan) (Received August 1st, 1990) 475

Author Index 479

In articles with more than one author, the name of the author to whom correspondence should be addressed is indicated in the article heading by a 6-pointed asterisk (*)